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## CDFG's monitoring of Cache Slough and the Sacramento Deep Water Shipping Channel

Abstract: Several of the California Department of Fish and Game's (CDFG) long-term monitoring programs have increased their geographic coverage to include sampling within the Cache Slough and Sacramento Deep Water Shipping Channel (SDWC) region. This increased effort provides baseline monitoring that may help explain the relatively high productivity of the region. Concurrent fish and zooplankton tows were conducted from March through December 2011. Monthly tows were conducted and water quality data, such as water temperature, conductivity, and transparency, were recorded with each sampling event. Consistent catches of fish and zooplankton throughout the sampling period - often at higher relative abundances compared to other regions — make the Cache Slough complex an area of interest for aquatic ecologists and fish biologists. Sampling data suggest conditions that may increase productivity, like higher residence time and stratification.

**Statement of Relevance:** The data included in this presentation come from federal and state mandated monitoring programs conducted by CDFG. These monitoring programs fulfill requirements set forth by various regulatory documents like the U.S. Fish and Wildlife Service's Biological Opinion for delta smelt and the CDFG's State Water Project's Incidental Take Permit for Longfin smelt. Data from these monitoring programs are used by interest groups to advise the Water Operation's Management Team on the potential species-specific impacts of Central Valley Project and State Water Project operations.